

Work Order ID 93290

\*93290\*

Page 1

November-15-12 10:48:58 AM

Item ID: 647.9014

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Stop

\*NS2\*

Item Name: Strut Bracket

Start Date: 11/15/12 Start Qty: 160.00

\*160\*

Cust Item ID:

Required Date: 12/07/12 Req'd Qty: 160.00

\*160\*

Customer:

Reference:

Approvals: Process Plan: M.L.J.

Date: 11-11-15 Tooling:

Date:

Run Start

\*NR1\*

QC:

Date: SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
647.9000	N/C	0.00							
110									
*110*									
Waterjet	Memo	0.00							
FLOW CNC Waterjet	1-Cut as per Dwg Dwg Rev: N/C Prog Rev: N/C								
	2-Deburr if necessary								
120	QC2- Inspect parts off machine FAI/FAIB	0.00							
*120*									
QC	Memo	0.00							
Quality Control									

93290(187)

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			<b>DISPOSITION</b>		<b>AGAINST DEPARTMENT/PROCESS</b>					
			<input type="checkbox"/> Rework	<input type="checkbox"/> Skid-tube	<input type="checkbox"/> Crosstube	<input type="checkbox"/> Water Jet	<input type="checkbox"/> Engineering			
			<input type="checkbox"/> Scrap	<input type="checkbox"/> Machining	<input type="checkbox"/> Small Fab	<input type="checkbox"/> Prod. Eng. Coor.	<input type="checkbox"/> Quality			
			<input type="checkbox"/> Use-as-is	<input type="checkbox"/> Thermoforming	<input type="checkbox"/> Finishing	<input type="checkbox"/> Rec/Store/Packaging	<input type="checkbox"/> Other			
			<input type="checkbox"/> Work Order Update	<input type="checkbox"/> Large Fab	<input type="checkbox"/> Composite	<input type="checkbox"/> Supplier				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										
<b>FAULT CATEGORY</b>										
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions						
				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Other						

Work Order ID 93290

\*93290\*

Page 2

November-15-12 10:48:58 AM

Item ID:	647.9014	Accept	*N900040100*	Setup	Start *NS1*
Revision ID:				Stop	*NS2*
Item Name:	Strut Bracket				
Start Date:	11/15/12	Start Qty:	160.00	*160*	Cust Item ID:
Required Date:	12/07/12	Req'd Qty:	160.00	*160*	Customer:
Reference:					
Approvals:	Process Plan:	Date:	Tooling:	Date:	Run Start *NR1*
	QC:	Date:	SPC (Y/N):	Date:	Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 <b>*130*</b> QC Quality Control	QC8- Inspect parts - second check Memo	0.00 5 0.00 10/12/12				186 Colin			
140 <b>*140*</b> Brake NC Brake NC	Form as per dwg Memo	0.00				186 Colin			8/13/2012
150 <b>*150*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0 AS 0.00 13 5 22				186 Colin			

NCR: Yes / No

## **WORK ORDER NON-COMPLIANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>				
Part No. _____											
NCR No. _____											
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
Bending				Bend <input type="checkbox"/>	Grain <input type="checkbox"/>			Ovalized <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>		
Centre Not Concentric to O/S				BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>			Over/Under tolerance <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>		
Cracks				Broken/Damaged <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>			Part Incorrect <input type="checkbox"/>	Weld <input type="checkbox"/>		
Crushed/Crimped.				Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>			Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>		
Cuffs				Contamination <input type="checkbox"/>	Maintenance <input type="checkbox"/>			Part Moved <input type="checkbox"/>			
Heat Treat				Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>			Positioned Wrong <input type="checkbox"/>			
Inspection Strip in Tube				Cut Too Short <input type="checkbox"/>	Misread <input type="checkbox"/>			Power Loss/Surge <input type="checkbox"/>			
Ripples in Bend				Drill Holes <input type="checkbox"/>	Offset <input type="checkbox"/>						
Torque Waves in Extrusion				Drawing <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>						
Turning Sequence				Finish <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>						
Wave/Twist in Tube				Folio <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>						



NCR: Yes / No

## **WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: Date:

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>				
Part No. _____											
NCR No. _____											
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear	General										
	Bending	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Ovalized	<input type="checkbox"/>	Pressure/Forced				
	Centre Not Concentric to O/S	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Temperature/Cure				
	Cracks	<input type="checkbox"/>	Inspection Incomplete	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Weld				
	Crushed/Crimped.	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Wrong Stock Pulled				
	Cuffs	<input type="checkbox"/>	Maintenance	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>					
	Heat Treat	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>					
	Inspection Strip in Tube	<input type="checkbox"/>	Misread	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>					
	Ripples in Bend	<input type="checkbox"/>	Offset	<input type="checkbox"/>		<input type="checkbox"/>					
	Torque Waves in Extrusion	<input type="checkbox"/>	Out of Calibration	<input type="checkbox"/>		<input type="checkbox"/>					
	Turning Sequence	<input type="checkbox"/>	Out of Sequence	<input type="checkbox"/>		<input type="checkbox"/>					
	Wave/Twist in Tube	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>		<input type="checkbox"/>					
						<input type="checkbox"/>	Other				



NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS							
Part No. _____		Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____		Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
		Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Finishing <input type="checkbox"/>	Composite <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Other		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled	

# Picklist Print

November-15-12 10:48:58 AM

Page 1

Work Order ID: 93290

Start Date: 11/15/12

Required Date: 12/07/12

Parent Item: 647.9014

Start Qty: 160.00

Required Qty: 160.00

Parent Item Name: Strut Bracket

Comments: IPP REV: A 12.11.01 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S16GA 304/316 Sheet .063		Purchased	No			110	sf	234.6780	0.033	5.5578947	G75 B12-11-18		

Location	Loc Qty	Loc Code
MAT020	234.678	
122245	10.578	
123136	224.1	123136

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS										
Part No. _____	Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>									
NCR No. _____	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>										
	Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>										
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector						
Doc/Data															
Equip/Tooling															
Operator															
Material															
Setup															
Other															
Process															
Supplier															
Training															
Unapproved															
FAULT CATEGORY															
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio		<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled			
														<input type="checkbox"/> Other	

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03266				SHEET 1 OF 2
	DWG NO. 647.9000	REV N/C	PREPARED BY A. QUAN	DATE: 11/15/11	EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.
DWG TITLE: SHEETMETAL					
APPROVED BY:	ENGR: <i>P. Brown</i>	MFG: <i>D. Parker</i>	<i>F. Paul Lyon</i>	EFF: CURRENT ORDER AND STOCK	
TRANSACTION CODES (TC) A-ADD C-CREATE R-REVISE D-DELETE		REASON: REVISED 647.9014 MATERIAL, REVISED DIMENSIONS OF P/N 647.9012			

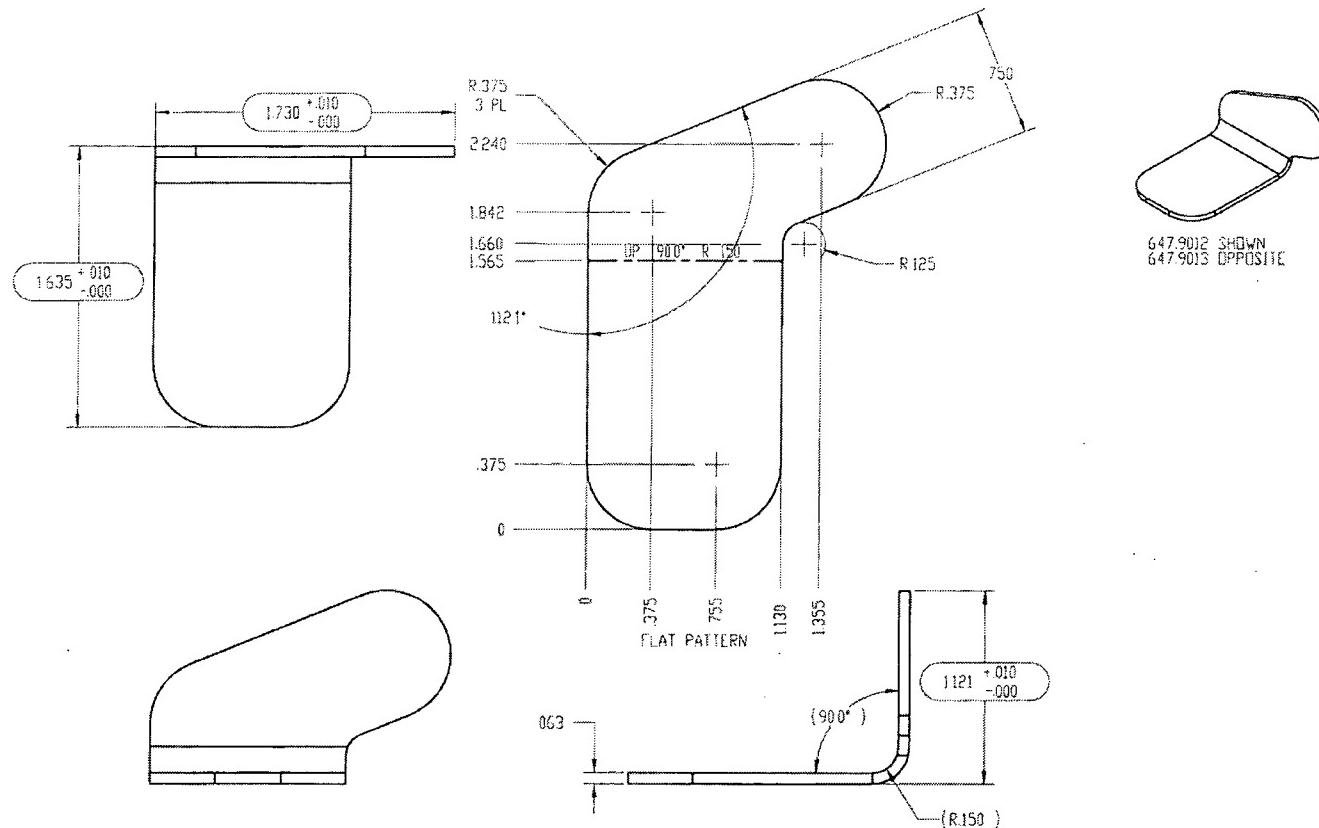
**SHEET 1, NOTES:**

NOTES: UNLESS OTHERWISE SPECIFIED

- 1 MATERIAL: ALUMINUM 2024-T3 PER AMS-QQ-A-250/4
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK;  
PRETREAT PR-148 ADHESION PROMOTER, PRIME IAW MIL-P-23377J, TYPE I, CLASS N
- 3. DEBURR AND BREAK ALL SHARP EDGES
- 4. IDENTIFY IAW MPP-120. LASER ETCH P/N AND REVISION 12PT. CENTURY GOTHIC.
- 5. ALL DIMENSIONS SHOWN PRIOR TO FINISH.
- 6 PART DIMENSIONS CONTROLLED BY CAD MODEL; FILE NAME: 647.9016 DOUBLER.SLDPRT-LAST MODIFIED 06-29-10
- 7. INSPECTION DIMENSIONS SHOWN WITH FINISH APPROX. 3-5 MIL MAX PER FACE.
- 8 MATERIAL: 304SS IAW AMS 5643
- 9 FINISH: PRIME IAW MIL-P-23377J, TYPE I, CLASS N

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
*93290 MLJ*  
12-11-15

5	R	647.9014		STRUT BRACKET		8	9
F/N	TC	PART NUMBER	QTY	DESCRIPTION		MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:							
				<input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRUC <input type="checkbox"/> ICA <input checked="" type="checkbox"/> BOM	CHANGE CATEGORY <input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	DER REVIEW REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

SHEET 3, IS:

F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL	SPECIFICATION

**APICAL  
INDUSTRIES, INC.**

ENGINEERING CHANGE NOTIC. NO. 03213

NO. 03213

SHEET 1

93290

1

DWG NO. 647.9000

REV: N/C

PREPARED  
BY

A. QUAN

DATE: 11/09/11

## EFFECT ON DWG DING MUNING

□ INC. ■ LINING.

DWG TITLE: SHEETMETAL

APPROVED

EN

MF

*Darrell Barker*

Q8

Frank Lamm

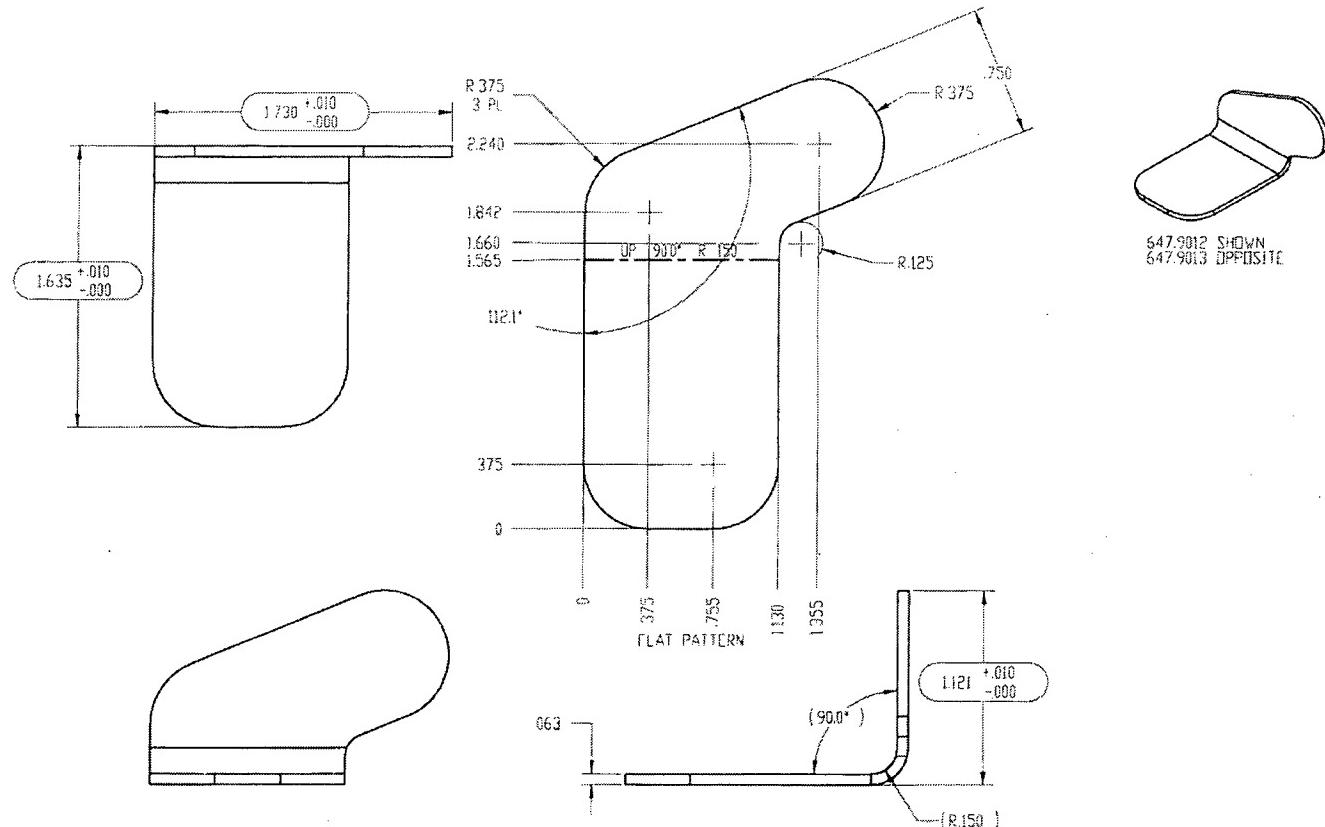
EF

F1 CURRENT ORDER AND STOCK

TRANSACTION CODES (TC)

REASON: REVISED 647.9013 DIMENSIONS

SHEET 3, IS:



F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:				<input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRUC <input type="checkbox"/> ICA <input type="checkbox"/> BOM	CHANGE CATEGORY <input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	DER REVIEW REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

93290

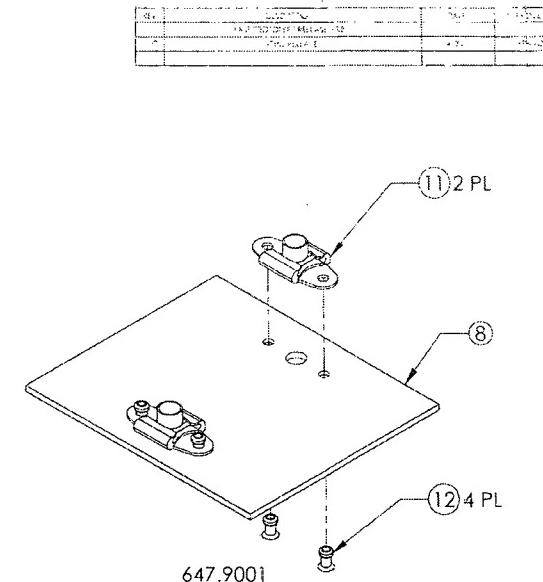
1. DESIGNER: [REDACTED]  
2. DATE: [REDACTED]  
3. DRAWING NUMBER: [REDACTED]  
4. DRAWING TITLE: [REDACTED]

NOTES: UNLESS OTHERWISE SPECIFIED

MATERIAL: ALUMINUM 2024-T3 PER AMS-QQ-A-250/4

FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK;  
PRETREAT PR-148 ADHESION PROMOTER, PRIME IAW MIL-P-23377J, TYPE I, CLASS N

3. DEBURR AND BREAK ALL SHARP EDGES
4. IDENTIFY IAW MPP-120. LASER ETCH P/N AND REVISION 12PT. CENTURY GOTHIC.
5. ALL DIMENSIONS SHOWN PRIOR TO FINISH.
6. PART DIMENSIONS CONTROLLED BY CAD MODEL; FILE NAME: 647.9016 DOUBLER.SLDPRT-LAST MODIFIED 06-29-10
7. INSPECTION DIMENSIONS SHOWN WITH FINISH APPROX. 3-5 MIL MAX PER FACE.

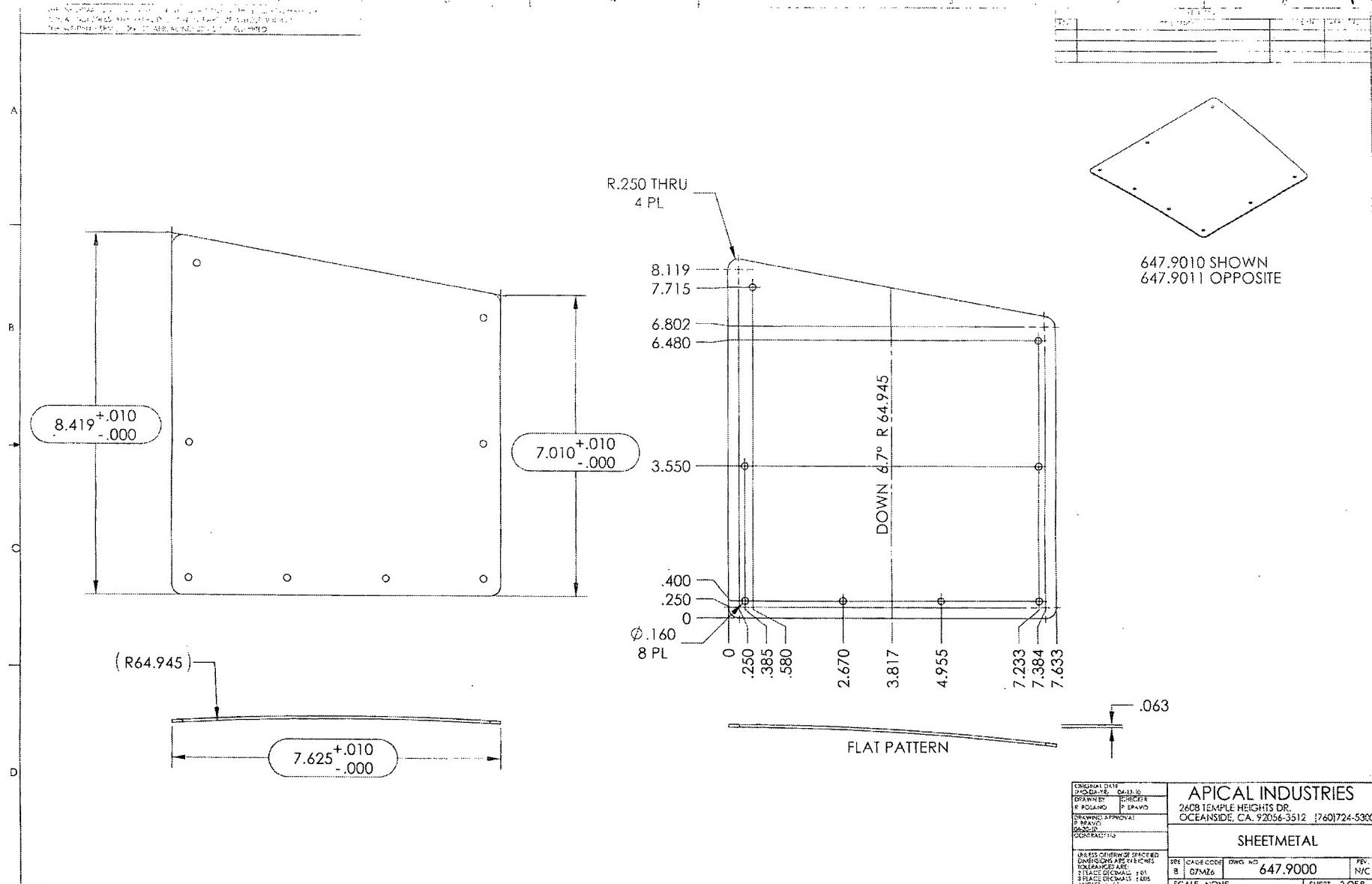


## UNINCORPORATED ECN(s)

03213, 03246g

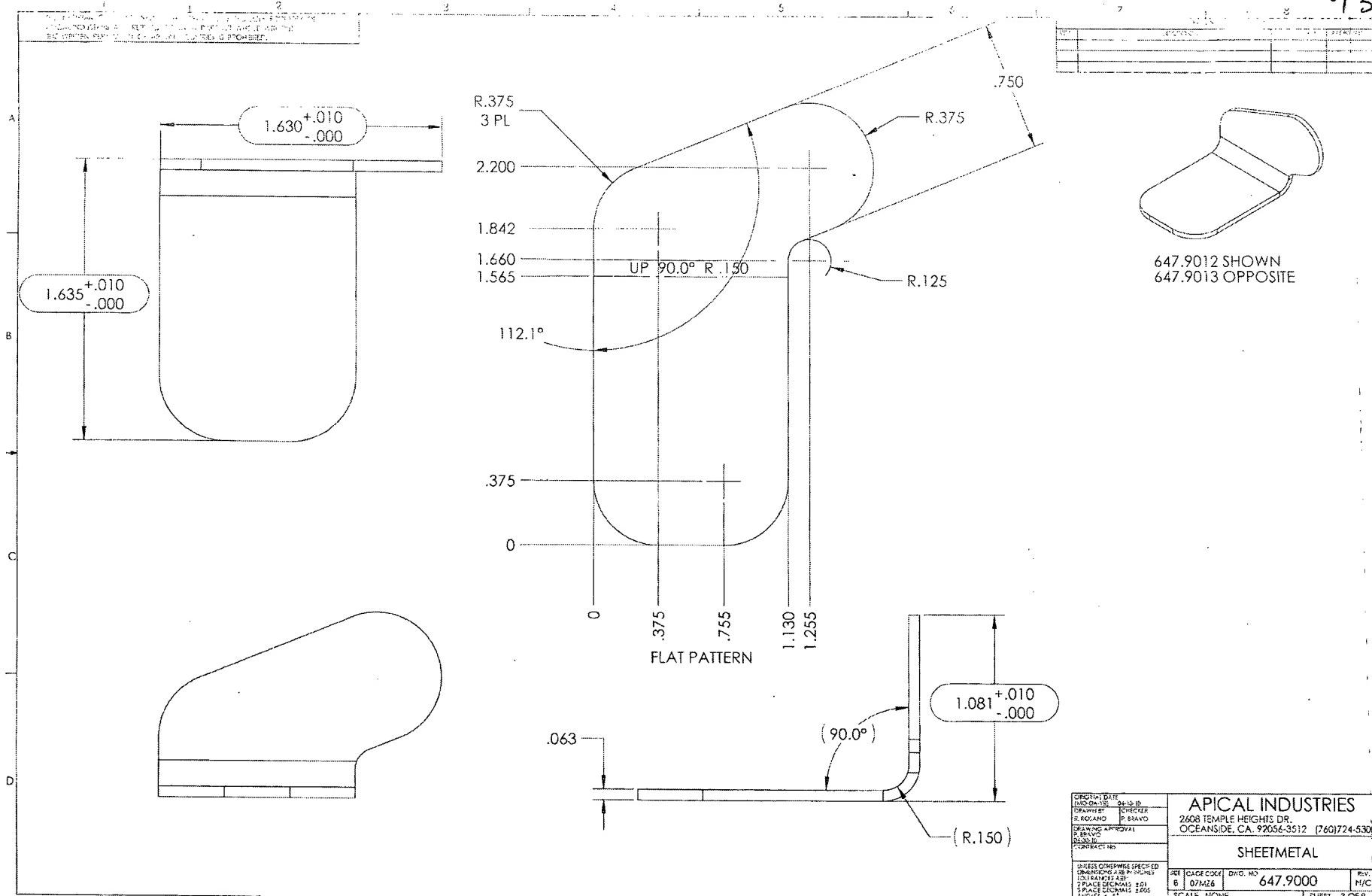
	4	12	601.2277	RIVET	COP26551402
	2	11	601.1900	NUTPLATE	MSS1055-3
		10	647.9019	HINGE	
		9	647.9018	DOUBLER	
1	8	647.9017	DOUBLER		
	7	647.9016	DOUBLER		
	6	647.9015	DOUBLER		
	5	647.9014	SIRUI RACKET		
	4	647.9013	FWD CLIP		
	3	647.9012	FWD CLIP		
	2	647.9011	DOUBLER		
	1	647.9010	DOUBLER		
		647.9001	DOUBLER ASSY		
		9001	FIND #	PART #	DESCRIPTION
					MATL
					SPEC.
QTY					PARTS LIST
NEXT ASSY(S)			ORIGINAL DATE DRAWING NO. REV.		APICAL INDUSTRIES
647.8900			06-29-10 647.9400		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 760724-5300
			DRAWING APPROVAL P. SPANO CONTRACT NO.		
					760724-5300
					SHEETMETAL
			PRINT ON ONE SIDE OF SHEET PRINT FACING UP PRINT DATE: [REDACTED]		
			1 PLACE DECIMALS, 1103 ANGLE: 1.3°		
					SCALE: NONE
					REV: A/C
					SHEET 1 OF 9

93290

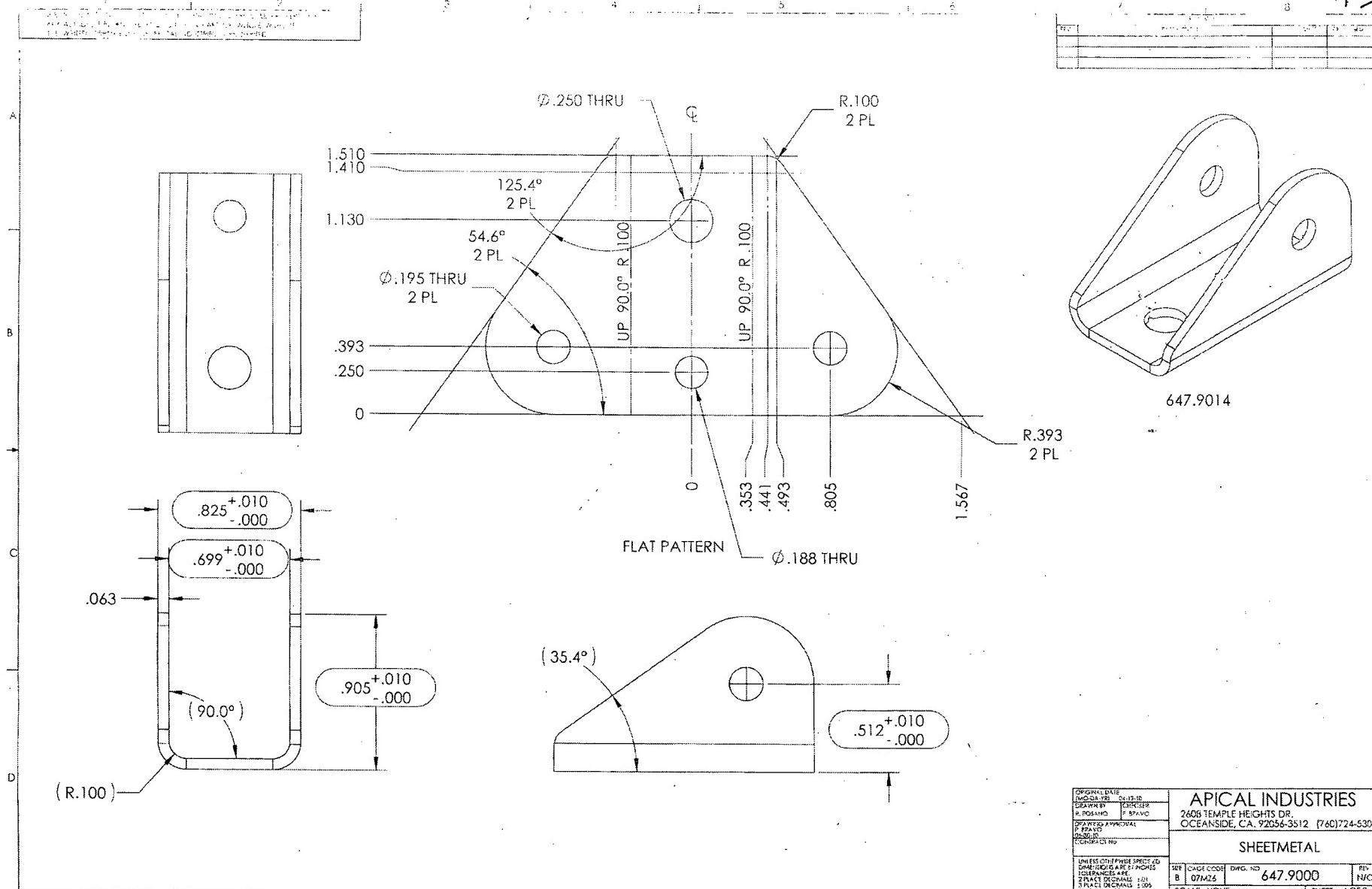


ORIGINAL DATE 7-10-04-18	REVISED DATE CA-12-10	
DRAWN BY P. M. HODGSON	CHECKED BY E. M. VANDO	
REVIEWED APPROVAL P. M. HODGSON S. J. COOPER CONTRACTOR		
<b>APICAL INDUSTRIES</b> 2408 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300		
<b>SHEETMETAL</b>		
CLASS OF DRAWING OF SHEETED MATERIALS AND TOLERANCES TOLERANCES ARE: SURFACE FINISHES 100 SURFACE THICKNESS 100 ANGLES 1/8"		
SPC. CODE	DWG. NO.	REV.
B-07M26	647.9000	N/C
SCALE NONE		SHEET 2 OF 9

93290



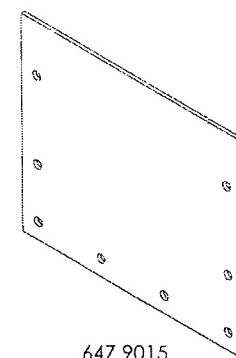
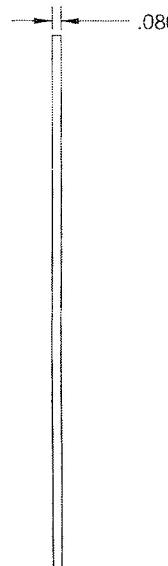
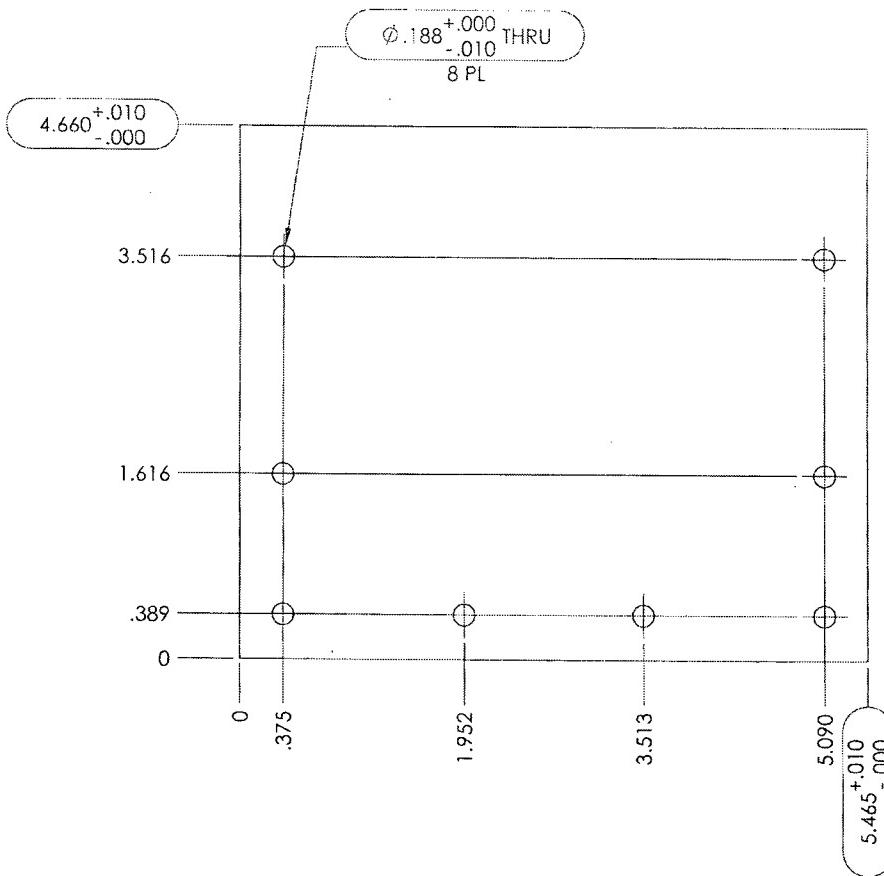
93290



93290



A



PRINTED DATE	04-10-10
DRAWN BY	CHUCKP
REVISED BY	P.BRAVO
APPROVAL	BBWV
REVISION	0001
CONTRACT NO.	

APICAL INDUSTRIES  
2608 TEMPLE HEIGHTS DR.  
OCEANSIDE, CA 92056-3512 (760)724-5300

SHEETMETAL

SPC	CAGE CODE	DIV. NO.	R/W
B	07ML6	647.9000	N/C
		SCALE NONE	SHEET 5 OF 9

93290

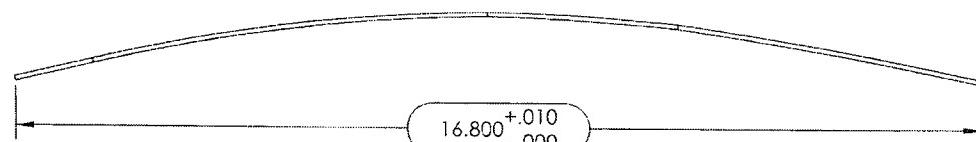
1	2
3	4
5	6
7	8

1	2
3	4
5	6
7	8

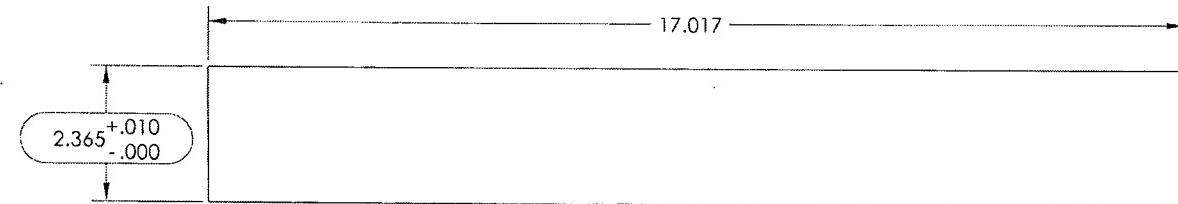
A



B

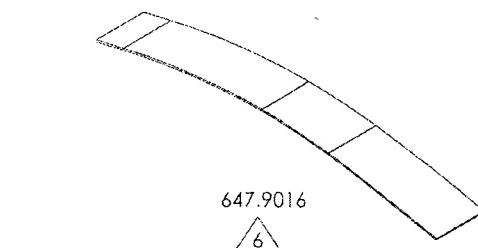


C



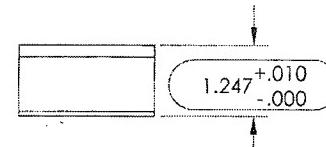
D

FLAT PATTERN



647.9016

6

1.247<sup>+.010</sup>  
-.000

.080

DRAWING DATE: DEC-04-1991 D-11-10  
 DRAWN BY: CHUCK R.  
 X-RAYED BY: F. BRAVO  
 DESIGN APPROVAL:  
 BRAVO  
 APPROVED:  
 CHUCK R.  
 SHEETMETAL

APICAL INDUSTRIES  
 2608 TEMPLE HEIGHTS DR.  
 OCEANSIDE, CA. 92056-3512 (760)724-5300

DATE	CAGE CODE	DWG NO.	REV
B	07M16	647.9000	N/C
SCALE NONE			
SHEET 6 OF 9			

BLIND HOLE(S) SPECIFIED  
 1.000 INCHES  
 SURFACE FINISH:  
 2 PLACE DECIMALS ±.01  
 HEIGHTS ±.25

93290



3

4

5

6

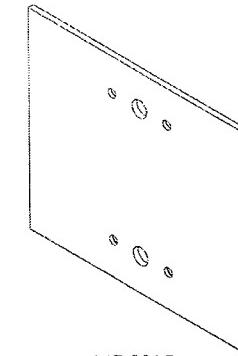
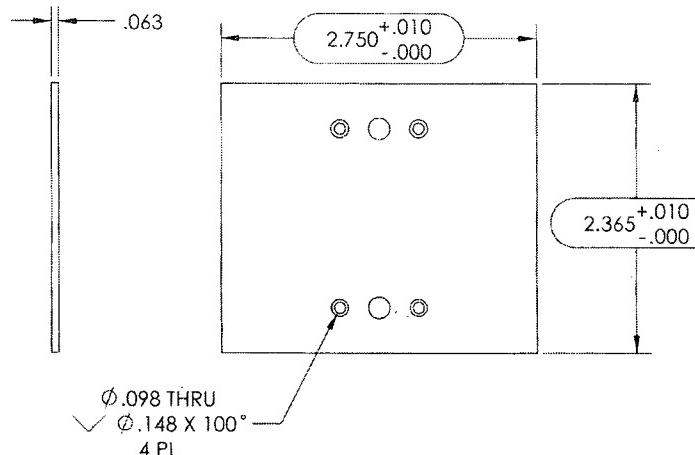
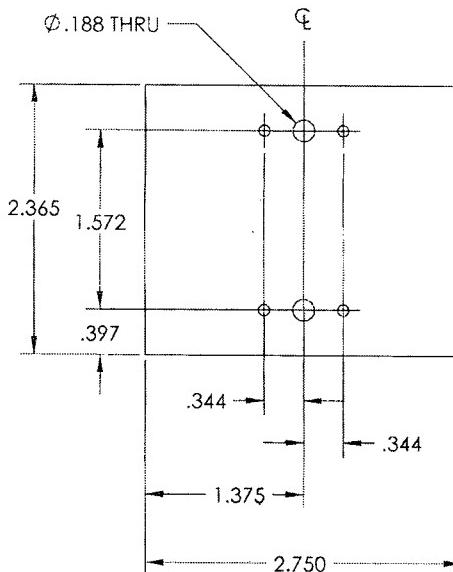
7

A

B

C

D



SPONSORSHIP	APICAL INDUSTRIES
PROJ. NO. 19	647.9017
DRAWN BY	CHETTER
MAILED BY	J. P. HAVOC
DRAWING APPROVAL	P. S. K.C.
DATE DRAWN	10/10/00
CONTRACT NO.	
UNLESS OTHERWISE SPECIFIED	
ALL DIMENSIONS IN INCHES	
ANGLES ARE IN DEGREES	
ANGLES 2 & 3	
SCALE NONE	
CHECK CODE	07M26
REV N/C	
DATE 10/10/00	647.9000
SHEET 7 OF 9	

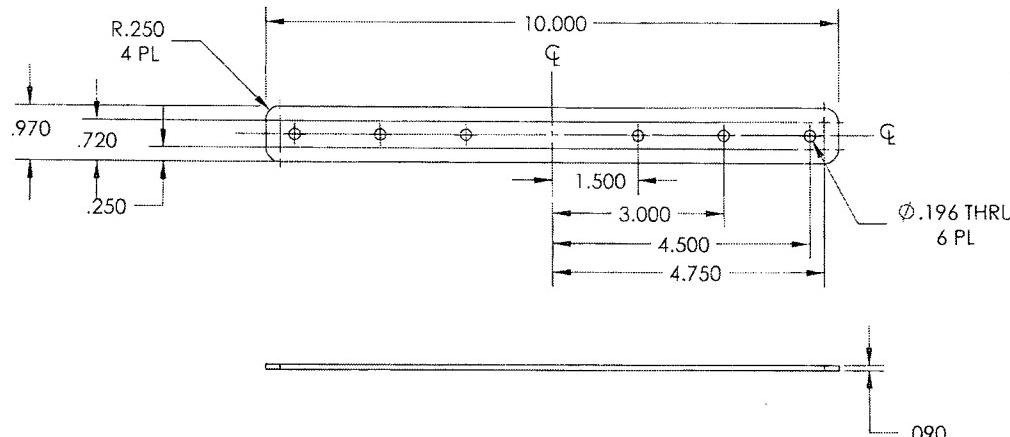
93290

1	2	3	4	5	6	7	8

1	2	3	4	5	6	7	8



647.9018



PROJ. DATA	REV. DATE	04-19-13	APICAL INDUSTRIES
PROJ. NO.	DES. BY	J. GROFF	2608 TEMPLE HEIGHTS DR.
MANUFACTURER	REV.	J. GROFF	OCEANSIDE, CA. 92056-3512 (760)724-5300
DRAWING APPROVAL		SHEETMETAL	
P. BRAVO		DRAFTED BY:	
J. GROFF		CONTRACTING:	
CNC RAKING:		APICAL INDUSTRIES	
UNLESS OTHERWISE SPECIFIED		DRAFT DATE: 04-19-13	
ALL DIMENSIONS ARE IN INCHES		DRAFT NUMBER: 04-19-13	
TOLERANCES ARE .010		DRAFT PAGE NUMBER: 1 OF 1	
STRAIGHTNESS 0.005		DRAFT PAGE COUNT: 1	
ANGLES ± .5°		DRAFT PAGE NUMBER: 1 OF 1	
SCALE: NONE		DRAFT PAGE COUNT: 1	
		DRAFT PAGE NUMBER: 1 OF 1	

93290

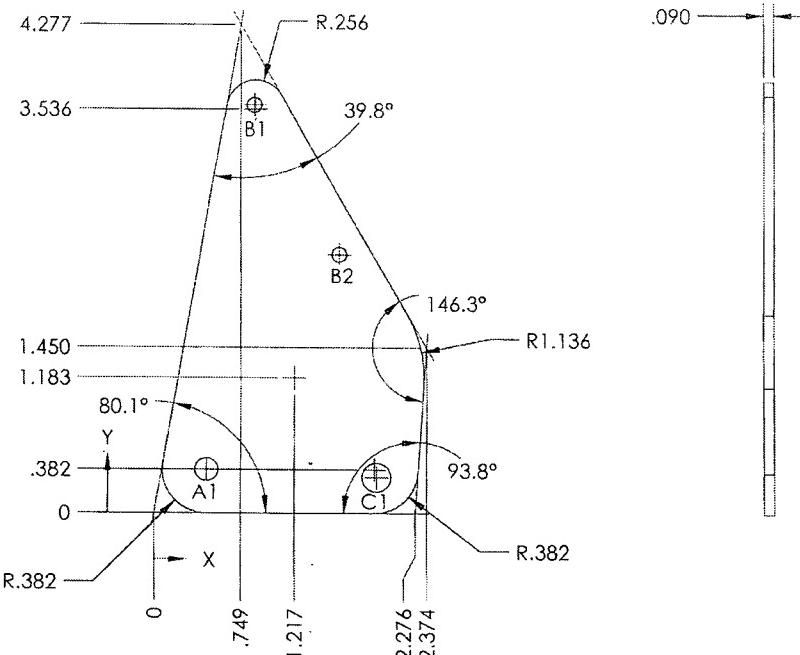
ALL DRAWINGS ARE IN INCHES  
UNLESS OTHERWISE SPECIFIED  
DRAWN BY: D. COOPER  
CHECKED BY: P. BRAV  
APRIL 1988  
APICAL INDUSTRIES

ALL DRAWINGS ARE IN INCHES  
UNLESS OTHERWISE SPECIFIED  
DRAWN BY: D. COOPER  
CHECKED BY: P. BRAV  
APRIL 1988  
APICAL INDUSTRIES

A

PR2

B



C

647.9019

D

TAG	X LOC	Y LOC	SIZE
A1	.455	.382	Ø.201 THRU
B1	.867	3.573	Ø.130 THRU
B2	1.614	2.266	Ø.130 THRU
C1	1.939	.312	Ø.250 THRU

DRAWN ON DATE	APRIL 1988	REV'D DATE	APRIL 1988
DRAWN BY	D. COOPER	CHECKED BY	P. BRAV
DRAWING APPROVAL			
APRIL 1988			
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES EXCEPT WHERE SPECIFIED TO PLACE DIMENSIONS 1&2 TO PLACE DIMENSIONS 3&4 ANGLES 2 & 3			
REV	CAGE CODE	DMG. NO.	P/C
B	07426	647.9000	N/C
SCALE NONE		SHEET	9 OF 9

APICAL INDUSTRIES  
2608 TEMPLE HEIGHTS DR.  
OCEANSIDE, CA. 92055-3512 (760)724-5300

SHEETMETAL

DART AEROSPACE LTD	Work Order:	93290
Description: STRUT BRACKET	Part Number:	647-9014
Inspection Dwg: 647-9014 Rev: N/C		Page 1 of 1

## **FIRST ARTICLE INSPECTION CHECKLIST**

Measured by:	<u>B</u>	Audited by:	<u>SAS</u> <u>15</u>	Preliminary Approval:	
Date:	(2-11-18)	Date:	(2-11-18)		Date:

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.04.15.